

### Abstract

A replaceable shielding apparatus provides a cost effective way of shielding a portion of a workpiece during processing. The apparatus includes a replaceable shield, made of comparable weight as the workpiece for allowing replacement of the shield in the same way as the replacement of the workpiece. With this feature, the replacement of the shield is a routine process and would not interfere much with the workpiece operation. The invention further includes a shield clamp for clamping the shield onto the workpiece. In a preferred embodiment, the invention further includes a non-reactive gas inlet for creating a pressurized cavity in the vicinity of the shielded portion of the workpiece.